SEQUENCE LISTING

<110> NAKAGAWA, Nobuaki
     YASUDA, Hisataka

<120> Novel DNA and Process for Preparing Protein Using the
      DNA

<130> FJN-063

<140> 09/051,670
<141> 1998-04-16

<150> PCT/JP97/02859
<151> 1997-08-19

<150> JP 235928/1996
<151> 1996-08-19

<160> 4

<170> PatentIn Ver. 2.0

<210> 1
<211> 1316
<212> DNA
<213> Homo sapiens

<220>
<221> exon
<222> (1173)..(1202)
<223> Encodes positions -21 to -12 of the OCIF protein

<220>
<223> Genomic DNA (human OCIF genomic DNA-1)

<400> 1
ctggagacat ataacttgaa cacttggccc tgatggggaa gcagctctgc agggactttt 60

tcagccatct gtaaacaatt tcagtggcaa cccgcgaact gtaatccatg aatgggacca 120

cactttacaa gtcatcaagt ctaacttcta gaccagggaa ttaatggggg agacagcgaa 180

ccctagagca aagtgccaaa cttctgtcga tagcttgagg ctagtggaaa gacctcgagg 240

aggctactcc agaagttcag cgcgtaggaa gctccgatac caatagccct ttgatgatgg 300

tggggttggt gaagggaaca gtgctccgca aggttatccc tgccccaggc agtccaattt 360

tcactctgca gattctctct ggctctaact accccagata acaaggagtg aatgcagaat 420

agcacgggct ttagggccaa tcagacatta gttagaaaaa ttcctactac atggtttatg 480

taaacttgaa gatgaatgat tgcgaactcc ccgaaaaggg ctcagacaat gccatgcata 540

aagaggggcc ctgtaatttg aggtttcaga acccgaagtg aaggggtcag gcagccgggt 600

acggcggaaa ctcacagctt tcgcccagcg agaggacaaa ggtctgggac acactccaac 660

tgcgtccgga tcttggctgg atcggactct cagggtggag gagacacaag cacagcagct 720

1

gcccagcgtg tgcccagccc tcccaccgct ggtcccggct gccaggaggc tggccgctgg 780

cgggaagggg ccgggaaacc tcagagcccc gcggagacag cagccgcctt gttcctcagc 840

ccggtggctt ttttttcccc tgctctccca ggggacagac accaccgccc cacccctcac 900

gccccacctc cctgggggat cctttccgcc ccagccctga aagcgttaat cctggagctt 960

tctgcacacc ccccgaccgc tcccgcccaa gcttcctaaa aaagaaaggt gcaaagtttg 1020

gtccaggata gaaaaatgac tgatcaaagg caggcgatac ttcctgttgc cgggacgcta 1080

tatataacgt gatgagcgca cgggctgcgg agacgcaccg gagcgctcgc ccagccgccg 1140

cctccaagcc cctgaggttt ccggggacca ca atg aac aag ttg ctg tgc tgc 1193

gcg ctc gtg gtaagtccct gggccagccg acgggtgccc ggcgcctggg          1242

gaggctgctg ccacctggtc tcccaacctc ccagcggacc ggcggggaga aggctccact 1302

                                                                 1316
cgctccctcc cagg

<210> 2
<211> 9898
<212> DNA
<213> Homo sapiens

<220>
<221> exon
<222> (130)..(498)
<223> Encodes positions -11 to 112 of the OCIF protein

<220>
<221> exon
<222> (4503)..(4694)
<223> Encodes positions 113 to 176 of the OCIF protein

<220>
<221> exon
<222> (6715)..(6939)
<223> Encodes positions 177 to 251 ot the OCIF protein

<220>
<221> exon
<222> (8668)..(9054)
<223> Encodes positions 252 to 380 of the OCIF protein

<220>
<223> Genomic DNA (human OCIF genomic DNA-2)

<400> 2
gcttactttg tgccaaatct cattaggctt aaggtaatac aggactttga gtcaaatgat 60

actgttgcac ataagaacaa acctattttc atgctaagat gatgccactg tgttcctttc 120

tccttctag ttt ctg gac atc tcc att aag tgg acc acc cag gaa acg ttt 171

cct cca aag tac ctt cat tat gac gaa gaa acc tct cat cag ctg ttg 219

tgt gac aaa tgt cct cct ggt acc tac cta aaa caa cac tgt aca gca 267

2

aag tgg aag acc gtg tgc gcc cct tgc cct gac cac tac tac aca gac    315

agc tgg cac acc agt gac gag tgt cta tac tgc agc ccc gtg tgc aag    363

gag ctg cag tac gtc aag cag gag tgc aat cgc acc cac aac cgc gtg    411

tgc gaa tgc aag gaa ggg cgc tac ctt gag ata gag ttc tgc ttg aaa    459

cat agg agc tgc cct cct gga ttt gga gtg gtg caa gct ggtacgtgtc    508

aatgtgcagc aaaattaatt aggatcatgc aaagtcagat agttgtgaca gtttaggaga 568

acactttgt tctgatgaca ttataggata gcaaattgca aaggtaatga aacctgccag 628

gtaggtacta tgtgtctgga gtgcttccaa aggaccattg ctcagaggaa tactttgcca 688

ctacagggca atttaatgac aaatctcaaa tgcagcaaat tattctctca tgagatgcat 748

gatggttttt tttttttttt ttaaagaaac aaactcaagt tgcactattg atagttgatc 808

tatacctcta tatttcactt cagcatggac accttcaaac tgcagcactt tttgacaaac 868

atcagaaatg ttaatttata ccaagagagt aattatgctc atattaatga gactctggag 928

tgctaacaat aagcagttat aattaattat gtaaaaaatg agaatggtga ggggaattgc 988

atttcattat taaaaacaag gctagttctt cctttagcat gggagctgag tgtttgggag 1048

ggtaaggact atagcagaat ctcttcaatg agcttattct ttatcttaga caaaacagat 1108

tgtcaagcca agagcaagca cttgcctata aaccaagtgc tttctctttt gcattttgaa 1168

cagcattggt cagggctcat gtgtattgaa tcttttaaac cagtaaccca cgtttttttt 1228

ctgccacatt tgcgaagctt cagtgcagcc tataactttt catagcttga gaaaattaag 1288

agtatccact tacttagatg gaagaagtaa tcagtataga ttctgatgac tcagtttgaa 1348

gcagtgtttc tcaactgaag ccctgctgat attttaagaa atatctggat tcctaggctg 1408

gactcctttt tgtgggcagc tgtcctgcgc attgtagaat tttggcagca cccctggact 1468

ctagccacta gataccaata gcagtccttc ccccatgtga cagccaaaaa tgtcttcaga 1528

cactgtcaaa tgtcgccagg tggcaaaatc actcctggtt gagaacaggg tcatcaatgc 1588

taagtatctg taactatttt aactctcaaa acttgtgata tacaaagtct aaattattag 1648

acgaccaata ctttaggttt aaaggcatac aaatgaaaca ttcaaaaatc aaaatctatt 1708

ctgtttctca aatagtgaat cttataaaat taatcacaga agatgcaaat tgcatcagag 1768

tcccttaaaa ttcctcttcg tatgagtatt tgagggagga attggtgata gttcctactt 1828

tctattggat ggtactttga gactcaaaag ctaagctaag ttgtgtgtgt gtcagggtgc 1888

ggggtgtgga atcccatcag ataaaagcaa atccatgtaa ttcattcagt aagttgtata 1948

tgtagaaaaa tgaaaagtgg gctatgcagc ttggaaacta gagaattttg aaaaataatg 2008

3

```
gaaatcacaa ggatctttct taaataagta agaaaatctg tttgtagaat gaagcaagca 2068

ggcagccaga agactcagaa caaaagtaca cattttactc tgtgtacact ggcagcacag 2128

tgggatttat ttacctctcc ctccctaaaa acccacacag cggttcctct tgggaaataa 2188

gaggtttcca gcccaaagag aaggaaagac tatgtggtgt tactctaaaa agtatttaat 2248

aaccgttttg ttgttgctgt tgctgttttg aaatcagatt gtctcctctc catattttat 2308

ttacttcatt ctgttaattc ctgtggaatt acttagagca agcatggtga attctcaact 2368

gtaaagccaa atttctccat cattataatt tcacattttg cctggcaggt tataattttt 2428

atatttccac tgatagtaat aaggtaaaat cattacttag atggatagat ctttttcata 2488

aaaagtacca tcagttatag agggaagtca tgttcatgtt caggaaggtc attagataaa 2548

gcttctgaat atattatgaa acattagttc tgtcattctt agattctttt tgttaaataa 2608

ctttaaaagc taacttacct aaaagaaata tctgacacat atgaacttct cattaggatg 2668

caggagaaga cccaagccac agatatgtat ctgaagaatg aacaagattc ttaggcccgg 2728

cacggtggct cacatctgta atctcaagag tttgagaggt caaggcgggc agatcacctg 2788

aggtcaggag ttcaagacca gcctggccaa catgatgaaa ccctgcctct actaaaaata 2848

caaaaattag caggcatgg tggtgcatgc ctgcaaccct agctactcag gaggctgaga 2908

caggagaatc tcttgaaccc tcgaggcgga ggttgtggtg agctgagatc cctctactgc 2968

actccagcct gggtgacaga gatgagactc cgtccctgcc gccgcccccg ccttccccccc 3028

caaaaagatt cttcttcatg cagaacatac ggcagtcaac aaagggagac ctgggtccag 3088

gtgtccaagt cacttatttc gagtaaatta gcaatgaaag aatgccatgg aatccctgcc 3148

caaatacctc tgcttatgat attgtagaat ttgatataga gttgtatccc atttaaggag 3208

taggatgtag taggaaagta ctaaaaacaa acacacaaac agaaaaccct ctttgctttg 3268

taaggtggtt cctaagataa tgtcagtgca atgctggaaa taatatttaa tatgtgaagg 3328

ttttaggctg tgttttcccc tcctgttctt ttttttctgcc agccctttgt cattttttgca 3388

ggtcaatgaa tcatgtagaa agagacagga gatgaaacta gaaccagtcc attttgcccc 3448

ttttttttatt ttctggtttt ggtaaaagat acaatgaggt aggaggttga gatttataaa 3508

tgaagtttaa taagtttctg tagctttgat ttttctcttt catatttgtt atcttgcata 3568

agccagaatt ggcctgtaaa atctacatat ggatattgaa gtctaaatct gttcaactag 3628

cttacactag atggagatat tttcatattc agatacactg gaatgtatga tctagccatg 3688

cgtaatatag tcaagtgttt gaaggtattt attttttaata gcgtctttag ttgtggactg 3748

gttcaagttt ttctgccaat gatttcttca aatttatcaa atatttttcc atcatgaagt 3808

aaaatgccct tgcagtcacc cttcctgaag tttgaacgac tctgctgttt taaacagttt 3868
```

4

```
aagcaaatgg tatatcatct tccgtttact atgtagctta actgcaggct tacgcttttg 3928

agtcagcggc caactttatt gccaccttca aaagtttatt ataatgttgt aaattttac 3988

ttctcaaggt tagcatactt aggagttgct tcacaattag gattcaggaa agaaagaact 4048

tcagtaggaa ctgattggaa tttaatgatg cagcattcaa tgggtactaa tttcaaagaa 4108

tgatattaca gcagacacac agcagttatc ttgattttct aggaataatt gtatgaagaa 4168

tatggctgac aacacggcct tactgccact cagcggaggc tggactaatg aacaccctac 4228

ccttctttcc tttcctctca catttcatga gcgtttttgta ggtaacgaga aaattgactt 4288

gcatttgcat tacaaggagg agaaactggc aaaggggatg atggtggaag ttttgttctg 4348

tctaatgaag tgaaaaatga aaatgctaga gttttgtgca acataatagt agcagtaaaa 4408

accaagtgaa aagtctttcc aaaactgtgt taagagggca tctgctggga aacgatttga 4468

ggagaaggta ctaaattgct tggtattttc cgta gga acc cca gag cga aat aca 4523

gtt tgc aaa aga tgt cca gat ggg ttc ttc tca aat gag acg tca tct   4571

aaa gca ccc tgt aga aaa cac aca aat tgc agt gtc ttt ggt ctc ctg   4619

cta act cag aaa gga aat gca aca cac gac aac ata tgt tcc gga aac   4667

agt gaa tca act caa aaa tgt gga ata ggtaattaca ttccaaaata          4714

cgtctttgta cgattttgta gtatcatctc tctctctgag ttgaacacaa ggcctccagc 4774

cacattcttg gtcaaactta cattttccct ttcttgaatc ttaaccagct aaggctactc 4834

tcgatgcatt actgctaaag ctaccactca gaatctctca aaaactcatc ttctcacaga 4894

taacacctca aagcttgatt ttctctcctt tcacactgaa atcaaatctt gcccataggc 4954

aaagggcagt gtcaagtttg ccactgagat gaaattagga gagtccaaac tgtagaattc 5014

acgttgtgtg ttattacttt cacgaatgtc tgtattatta actaaagtat atattggcaa 5074

ctaagaagca aagtgatata aacatgatga caaattaggc caggcatggt ggcttactcc 5134

tataatccca acattttggg gggccaaggt aggcagatca cttgaggtca ggatttcaag 5194

accagcctga ccaacatggt gaaaccttgt ctctactaaa aatacaaaaa ttagctgggc 5254

atggtagcag gcacttctag taccagctac tcaggctga ggcaggagaa tcgcttgaac 5314

ccaggagatg gaggttgcag tgagctgaga ttgtaccact gcactccagt ctgggcaaca 5374

gagcaagatt tcatcacaca cacacacaca cacacacaca cacacattag aaatgtgtac 5434

ttggctttgt tacctatggt attagtgcat ctattgcatg gaacttccaa gctactctgg 5494

ttgtgttaag ctcttcattg ggtacaggtc actagtatta agttcaggtt attcggatgc 5554

attccacggt agtgatgaca attcatcagg ctagtgtgtg tgttcacctt gtcactccca 5614
```

5

ccactagact aatctcagac cttcactcaa agacacatta cactaaagat gatttgcttt 5674

tttgtgttta atcaagcaat ggtataaacc agcttgactc tccccaaaca gtttttcgta 5734

ctacaaagaa gtttatgaag cagagaaatg tgaattgata tatatatgag attctaaccc 5794

agttccagca ttgtttcatt gtgtaattga aatcatagac aagccatttt agcctttgct 5854

ttcttatcta aaaaaaaaaa aaaaaaaatg aaggaagggg tattaaaagg agtgatcaaa 5914

ttttaacatt ctctttaatt aattcatttt taattttact tttttcatt tattgtgcac 5974

ttactatgtg gtactgtgct atagaggctt taacatttat aaaaacactg tgaaagttgc 6034

ttcagatgaa tataggtagt agaacggcag aactagtatt caaagccagg tctgatgaat 6094

ccaaaaacaa acacccatta ctcccatttt ctgggacata cttactctac ccagatgctc 6154

tgggctttgt aatgcctatg taaataacat agttttatgt ttggttattt tcctatgtaa 6214

tgtctactta tatatctgta tctatctctt gctttgtttc caaaggtaaa ctatgtgtct 6274

aaatgtgggc aaaaaataac acactattcc aaattactgt tcaaattcct ttaagtcagt 6334

gataattatt tgttttgaca ttaatcatga agttccctgt gggtactagg taaaccttta 6394

atagaatgtt aatgtttgta ttcattataa gaatttttgg ctgttactta tttacaacaa 6454

tatttcactc taattagaca tttactaaac tttctcttga aaacaatgcc caaaaaagaa 6514

cattagaaga cacgtaagct cagttggtct ctgccactaa gaccagccaa cagaagcttg 6574

attttattca aactttgcat tttagcatat tttatcttgg aaaattcaat tgtgttggtt 6634

ttttgttttt gtttgtattg aatagactct cagaaatcca attgttgagt aaatcttctg 6694

ggttttctaa cctttcttta gat gtt acc ctg tgt gag gag gca ttc ttc agg 6747

ttt gct gtt cct aca aag ttt acg cct aac tgg ctt agt gtc ttg gta    6795

gac aat ttg cct ggc acc aaa gta aac gca gag agt gta gag agg ata    6843

aaa cgg caa cac agc tca caa gaa cag act ttc cag ctg ctg aag tta    6891

tgg aaa cat caa aac aaa gac caa gat ata gtc aag aag atc atc caa    6939

ggtatgataa tctaaaataa aaagatcaat cagaaatcaa agacacctat ttatcataaa 6999

ccaggaacaa gactgcatgt atgtttagtt gtgtggatct tgtttccctg ttggaatcat 7059

tgttggactg aaaaagtttc cacctgataa tgtagatgtg attccacaaa cagttataca 7119

aggttttgtt ctcacccctg ctccccagtt tccttgtaaa gtatgttgaa cactctaaga 7179

gaagagaaat gcatttgaag gcagggctgt atctcaggga gtcgcttcca gatcccttaa 7239

cgcttctgta agcagcccct ctagaccacc aaggagaagc tctataacca ctttgtatct 7299

tacattgcac ctctaccaag aagctctgtt gtatttactt ggtaattctc tccaggtagg 7359

ctttttcgtag cttacaaata tgttcttatt aatcctcatg atatggcctg cattaaaatt 7419

6

```
attttaatgg catatgttat gagaattaat gagataaaat ctgaaaagtg tttgagcctc 7479

ttgtaggaaa aagctagtta cagcaaaatg ttctcacatc ttataagttt atataaagat 7539

tctcctttag aaatggtgtg agagagaaac agagagagat agggagagaa gtgtgaaaga 7599

atctgaagaa aaggagtttc atccagtgtg gactgtaagc tttacgacac atgatggaaa 7659

gagttctgac ttcagtaagc attgggagga catgctagaa gaaaaaggaa gaagagtttc 7719

cataatgcag acagggtcag tgagaaattc attcaggtcc tcaccagtag ttaaatgact 7779

gtatagtctt gcactaccct aaaaaacttc aagtatctga aaccggggca acagatttta 7839

ggagaccaac gtctttgaga gctgattgct tttgcttatg caaagagtaa acttttatgt 7899

tttgagcaaa ccaaaagtat tctttgaacg tataattagc cctgaagccg aaagaaaaga 7959

gaaaatcaga gaccgttaga attggaagca accaaattcc ctattttata aatgaggaca 8019

ttttaaccca gaaagatgaa ccgatttggc ttagggctca cagatactaa gtgactcatg 8079

tcattaatag aaatgttagt tcctccctct taggtttgta ccctagctta ttactgaaat 8139

attctctagg ctgtgtgtct cctttagttc ctcgacctca tgtctttgag ttttcagata 8199

tcctcctcat ggaggtagtc ctctggtgct atgtgtattc tttaaaggct agttacggca 8259

attaacttat caactagcgc ctactaatga aactttgtat tacaaagtag ctaacttgaa 8319

tactttcctt tttttctgaa atgttatggt ggtaatttct caaacttttt cttagaaaac 8379

tgagagtgat gtgtcttatt ttctactgtt aattttcaaa attaggagct tcttccaaag 8439

ttttgttgga tgccaaaaat atatagcata ttatcttatt ataacaaaaa atatttatct 8499

cagttcttag aaataaatgg tgtcacttaa ctccctctca aagaaaagg ttatcattga 8559

aatataatta tgaaattctg caagaacctt ttgcctcacg cttgttttat gatggcattg 8619

gatgaatata aatgatgtga acacttatct gggctttgc tttatgca gat att gac 8676

ctc tgt gaa aac agc gtg cag cgg cac att gga cat gct aac ctc acc 8724

ttc gag cag ctt cgt agc ttg atg gaa agc tta ccg gga aag aaa gtg 8772

gga gca gaa gac att gaa aaa aca ata aag gca tgc aaa ccc agt gac 8820

cag atc ctg aag ctg ctc agt ttg tgg cga ata aaa aat ggc gac caa 8868

gac acc ttg aag ggc cta atg cac gca cta aag cac tca aag acg tac 8916

cac ttt ccc aaa act gtc act cag agt cta aag aag acc atc agg ttc 8964

ctt cac agc ttc aca atg tac aaa ttg tat cag aag tta ttt tta gaa 9012

atg ata ggt aac cag gtc caa tca gta aaa ata agc tgc tta 9054

taactggaaa tggccattga gctgtttcct cacaattggc gagatcccat ggatgagtaa 9114
```

7

```
actgtttctc aggcacttga ggctttcagt gatatctttc tcattaccag tgactaattt 9174

tgccacaggg tactaaaaga aactatgatg tggagaaagg actaacatct cctccaataa 9234

accccaaatg gttaatccaa ctgtcagatc tggatcgtta tctactgact atattttccc 9294

ttattactgc ttgcagtaat tcaactggaa attaaaaaaa aaaaactaga ctccactggg 9354

ccttactaaa tatgggaatg tctaacttaa atagctttgg gattccagct atgctagagg 9414

cttttattag aaagccatat ttttttctgt aaaagttact aatatatctg taacactatt 9474

acagtattgc tatttatatt cattcagata taagatttgg acatattatc atcctataaa 9534

gaaacggtat gacttaattt tagaaagaaa attatattct gtttattatg acaaatgaaa 9594

gagaaaatat atattttaa tggaaagttt gtagcatttt tctaataggt actgccatat 9654

ttttctgtgt ggagtatttt tataatttta tctgtataag ctgtaatatc attttataga 9714

aaatgcatta tttagtcaat tgtttaatgt tggaaaacat atgaaatata aattatctga 9774

atattagatg ctctgagaaa ttgaatgtac cttatttaaa agattttatg gttttataac 9834

tatataaatg acattattaa agttttcaaa ttatttttta ttgctttctc tgttgctttt 9894
                                                                    9898
attt
```

```
<210> 3
<211> 401
<212> PRT
<213> Homo sapiens

<220>
<223> Amino acids 1 to 21 correspond to positions -21 to
      -1 of the OCIF protein.  Amino acids 22 to 401
      correspond to positions 1 to 380 of the OCIF
      protein.

<400> 3
Met Asn Lys Leu Leu Cys Cys Ala Leu Val Phe Leu Asp Ile Ser Ile
  1               5                  10                  15

Lys Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
             20                  25                  30

Glu Glu Thr Ser His Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr
         35                  40                  45

Tyr Leu Lys Gln His Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro
     50                  55                  60

Cys Pro Asp His Tyr Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
 65                  70                  75                  80

Leu Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu
                 85                  90                  95

Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr
            100                 105                 110
```
8

Leu Glu Ile Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Phe
115                     120                 125

Gly Val Val Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg
130                     135                 140

Cys Pro Asp Gly Phe Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys
145                 150                 155                 160

Arg Lys His Thr Asn Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys
165                 170                 175

Gly Asn Ala Thr His Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr
180                 185                 190

Gln Lys Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
195                 200                 205

Phe Ala Val Pro Thr Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val
210                 215                 220

Asp Asn Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
225                 230                 235                 240

Lys Arg Gln His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu
245                 250                 255

Trp Lys His Gln Asn Lys Asp Gln Asp Ile Val Lys Lys Ile Ile Gln
260                 265                 270

Asp Ile Asp Leu Cys Glu Asn Ser Val Gln Arg His Ile Gly His Ala
275                 280                 285

Asn Leu Thr Phe Glu Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly
290                 295                 300

Lys Lys Val Gly Ala Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys
305                 310                 315                 320

Pro Ser Asp Gln Ile Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn
325                 330                 335

Gly Asp Gln Asp Thr Leu Lys Gly Leu Met His Ala Leu Lys His Ser
340                 345                 350

Lys Thr Tyr His Phe Pro Lys Thr Val Thr Gln Ser Leu Lys Lys Thr
355                 360                 365

Ile Arg Phe Leu His Ser Phe Thr Met Tyr Lys Leu Tyr Gln Lys Leu
370                 375                 380

Phe Leu Glu Met Ile Gly Asn Gln Val Gln Ser Val Lys Ile Ser Cys
385                 390                 395                 400

Leu

<210> 4
<211> 1206

9

<212> DNA
<213> Homo sapiens

<220>
<223> cDNA

<400> 4
atgaacaact tgctgtgctg cgcgctcgtg tttctggaca tctccattaa gtggaccacc 60

caggaaacgt ttcctccaaa gtaccttcat tatgacgaag aaacctctca tcagctgttg 120

tgtgacaaat gtcctcctgg tacctaccta aaacaacact gtacagcaaa gtggaagacc 180

gtgtgcgccc cttgccctga ccactactac acagacagct ggcacaccag tgacgagtgt 240

ctatactgca gccccgtgtg caaggagctg cagtacgtca agcaggagtg caatcgcacc 300

cacaaccgcg tgtgcgaatg caaggaaggg cgctaccttg agatagagtt ctgcttgaaa 360

cataggagct gccctcctgg atttggagtg gtgcaagctg aaccccaga gcgaaataca 420

gtttgcaaaa gatgtccaga tgggttcttc tcaaatgaga cgtcatctaa agcaccctgt 480

agaaaacaca caaattgcag tgtctttggt ctcctgctaa ctcagaaagg aaatgcaaca 540

cacgacaaca tatgttccgg aaacagtgaa tcaactcaaa aatgtggaat agatgttacc 600

ctgtgtgagg aggcattctt caggtttgct gttcctacaa agtttacgcc taactggctt 660

agtgtcttgg tagacaattt gcctggcacc aaagtaaacg cagagagtgt agagaggata 720

aaacggcaac acagctcaca gaacagact ttccagctgc tgaagttatg gaaacatcaa 780

aacaaagacc aagatatagt caagaagatc atccaagata ttgacctctg tgaaaacagc 840

gtgcagcggc acattggaca tgctaacctc accttcgagc agcttcgtag cttgatggaa 900

agcttaccgg gaaagaaagt gggagcagaa gacattgaaa aaacaataaa ggcatgcaaa 960

cccagtgacc agatcctgaa gctgctcagt ttgtggcgaa taaaaaatgg cgaccaagac 1020

accttgaagg gcctaatgca cgcactaaag cactcaaaga cgtaccactt tcccaaaact 1080

gtcactcaga gtctaaagaa gaccatcagg ttccttcaca gcttcacaat gtacaaattg 1140

tatcagaagt tattttttaga aatgataggt aaccaggtcc aatcagtaaa aataagctgc 1200

ttataa                                                                      1206